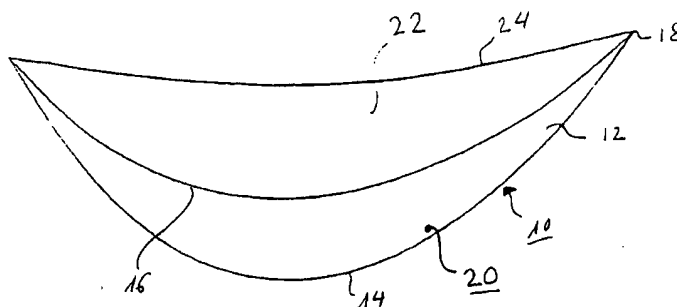




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(54) **PROTHESE MAMMAIRE**  
(54) **BREAST PROSTHESIS**



(57) L'invention concerne une prothèse mammaire qui comprend un corps cupuliforme réalisé dans un plastique souple soudé dans des pellicules plastiques, et constitue ainsi une première chambre. Cette prothèse comprend également une seconde chambre qui fait face à la peau de la femme qui la porte, est reliée à la première chambre et est remplie d'une charge différente de celle qui remplit la première chambre. Selon l'invention, la charge de la seconde chambre consiste en un matériau thixotrope.

(57) The invention concerns a breast prosthesis comprising a dish-shaped body of a plastics material which is adapted to be gently elastic and is bonded in plastics material foils, so forming a first chamber. The prosthesis further comprises a second chamber which faces the wearer during use, adjoins the first chamber and is filled with a different filler material. According to the invention, the filler material of the second chamber consists of a thixotropic material.

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### Breast prosthesis

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The invention relates to a breast prosthesis consisting of a shell-shaped body made from a soft and elastic plastic, preferably from an addition-vulcanised two-component silicone rubber mass, which body is welded into plastic films and so forms a first chamber and of a second chamber filled with a different filling material facing the wearer during wear and connecting to the first chamber.

Breast prostheses consisting of a shell-shaped body made from a soft and elastic addition-vulcanised two-component silicone rubber welded in plastic films are already known, for example from DE 90 10 426.9.

Such breast prostheses are used for cosmetic reasons after breast amputations due to cancer. In very recent times, new operation methods are becoming popular in which only the cancerous parts of the breast are operated, so that here only a partial amputation is performed. Due to this procedure, scar areas whose irregularities are individually different are created which - just like the remaining residual tissue - form surfaces undefined as such. When conventional breast prostheses are worn, this irregular surface now causes the problem that frequently the soft-elastic plastic applies pressure due to its inherent elasticity to the scar area of the only partially amputated breast and in this way leads to a reduction in the wearing comfort. In the case of a correspondingly large residual tissue area, the breast prosthesis will frequently no longer fit.

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DE 44 21 516 A reveals a two-chamber breast prosthesis of the generic type in which the second chamber is filled with a pad body made from foamed plastic or with a fibre ball.

It is the object of the present invention to provide a breast prosthesis which is also particularly suitable for the provision of care to patients after a partial amputation of the breast.

In accordance with the invention, this object is solved on the basis of a breast prosthesis of the generic type by the filling material of the second chamber consisting of a thixotropic material which adapts to the irregular scar situation of the partially amputated breast when the breast prosthesis is put on and which essentially maintains this shape.

Of particular advantage is a pasty material consisting essentially of a mixture of non-vulcanised silicone oil and silicic acid. In addition, light filling material, preferably plastic microspheres, can be added to the mixture.

One special embodiment of the invention provides for the external wall of the second chamber, which external wall also consists of a plastic film, having a fill-up valve by which the fill material can be filled in. In this way, a corresponding intermediate area can be created individually by a possible partial filling or a correspondingly adapted filling of the second chamber which creates a better adaptation of the breast prosthesis to the operation scar.

The shell-shaped first chamber can protrude over the rim of the second chamber with its rim area so that a hollow is produced. On the other hand, the rim of the second

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chamber can lie on the rim of the first chamber so that only a slightly concave arching is produced in section.

If required, the breast prosthesis can be designed as a partial prosthesis which corresponds only to the breast portion to be substituted.

Further details and advantages of the invention are described in more detail below by means of an embodiment presented in the drawing which shows:

Fig. 1: a schematic sectional view of a first embodiment of the breast prosthesis in accordance with the invention,

Fig. 2: a section through a second embodiment of a breast prosthesis in accordance with the invention,

Fig. 3: a rear view of the embodiment of Fig. 2 of the completely filled second chamber and

Fig. 4: a rear view as in Fig. 3, but with a partially filled second chamber.

The breast prosthesis 10 shown in Fig. 1 consists of a shell-shaped body 12 made from a soft and elastic addition-vulcanised two-component silicone rubber mass whose external side is covered by a polyurethane film 14 and whose internal side is covered by a polyurethane film 16 which are welded together along their shared circumferential rim 18 by a continuous welding seam. In this way, a first chamber 20 is produced. Within the hollow produced by the shell-shaped design of the first chamber 20, a second chamber 22 is positioned which is limited by a wall 24 also formed by a polyurethane film. The polyurethane walls 14, 16 and 24 advantageously

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possess in the embodiment of Fig. 1 a shared circumferential rim 18 which is designed as a common weld seam. In the second chamber 22 a pasty material is filled in accordance with the invention which consists of a mixture of non-vulcanised silicone oil and silicic acid to which plastic microspheres is added as a light filling material. The mixture of silicone oil and silicic acid is particularly well suited as a pasty material as a movability and thus an adaptation to the scar area is ensured by the silicone oil while, on the other hand, the silicic acid particles strive for entanglement with each other and thus to form a largely shape-stable unit if no further pressure is exercised on the surface of the second chamber. The plastic microspheres serve to reduce the specific weight of the total mixture and so to make the whole breast prosthesis lighter.

In Fig. 2 a modified form of a breast prosthesis 10 in accordance with the invention is shown in which the rim area of the first chamber protrudes over the rim of the second chamber. Here, a flat hollow is thus formed as is shown in the section in Fig. 2. In the rear view of Fig. 3 it becomes clear that a fill-up valve 26 is integrated in the plastic film 24. The pasty material can be filled into the second chamber 22 through this fill-up valve. In this process, the volume filled in provides for an optimum adaptation of the surface of the second chamber to the scar area of the partially amputated second breast. Advantageously, for example, a breast prosthesis with a second chamber either not filled at all or only partially filled can be released to the trade where the prosthesis can be adapted to the actual scar situation of the wearer by a corresponding filling of the additional chamber with the pasty material. The filling material in accordance with the invention for the second chamber now ensures that this adapts to the scar situation when filled with the pasty material and remains shape-stable in this position. If the scar situation changes, the prosthesis can be adapted to the new environment without difficulty and will also remain shape-stable after assuming this new shape. In the

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representation of Fig. 4, only a partially filled second chamber is shown with the degree of partial filling being indicated by the broken line.

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Breast prosthesis

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Claims

1. A breast prosthesis consisting of a shell-shaped body made from a soft and elastic plastic, preferably from an addition-vulcanised two-component silicone rubber mass, which body is welded in plastic films and thus forms a first chamber, and of a second chamber filled with a different filling material facing the wearer during wear and connecting to the first chamber,  
  
characterised in that  
  
the filling material of the second chamber consists of a thixotropic material.
2. A breast prosthesis in accordance with claim 1, characterised in that the pasty material consists essentially of a mixture of non-vulcanised silicone oil and silicic acid.
3. A breast prosthesis in accordance with claim 2, characterised in that light filling materials, preferably plastic microspheres, are added to the mixture.
4. A breast prosthesis in accordance with any of claims 1 to 3, characterised in that the external wall also consisting of a plastic film of the second chamber possesses a fill-up valve through which the filling material can be filled.

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5. A breast prosthesis in accordance with any of claims 1 to 4, characterised in that the shell-shaped first chamber protrudes over the rim of the second chamber with its rim area.
6. A breast prosthesis in accordance with any of claims 1 to 4, characterised in that the rim of the second chamber lies on the rim of the first chamber.
7. A breast prosthesis in accordance with any of claims 1 to 6, characterised in that it is designed as a partial prosthesis.



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Breast prosthesis

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**Abstract**

The invention relates to a breast prosthesis consisting of a shell-shaped body made from a soft and elastic plastic which is welded into plastic films and so forms a first chamber and of a second chamber filled with a different filling material facing the wearer during wear and connecting to the first chamber. In accordance with the invention, the filling material of the second chamber consists of a thixotropic material.



Fig. 1

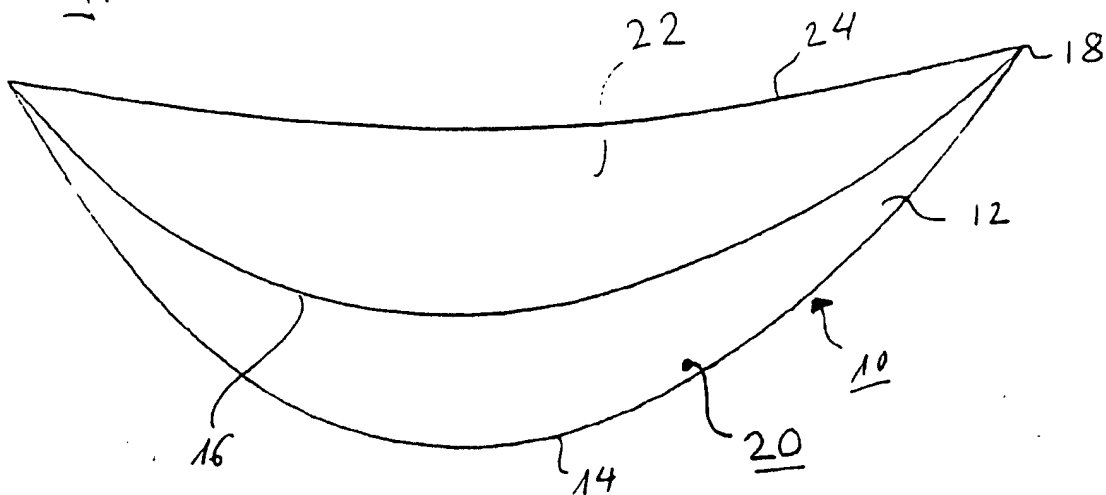
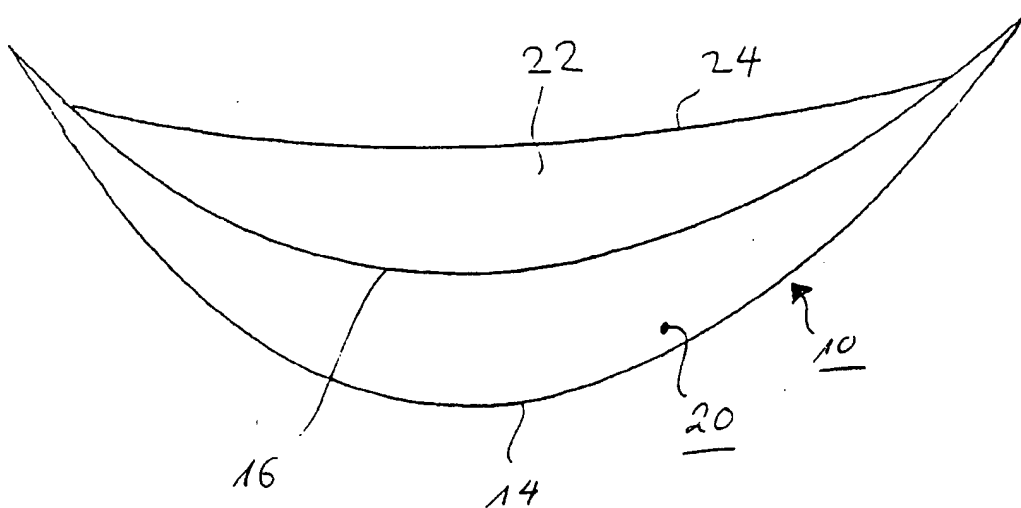


Fig. 2





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Fig. 3

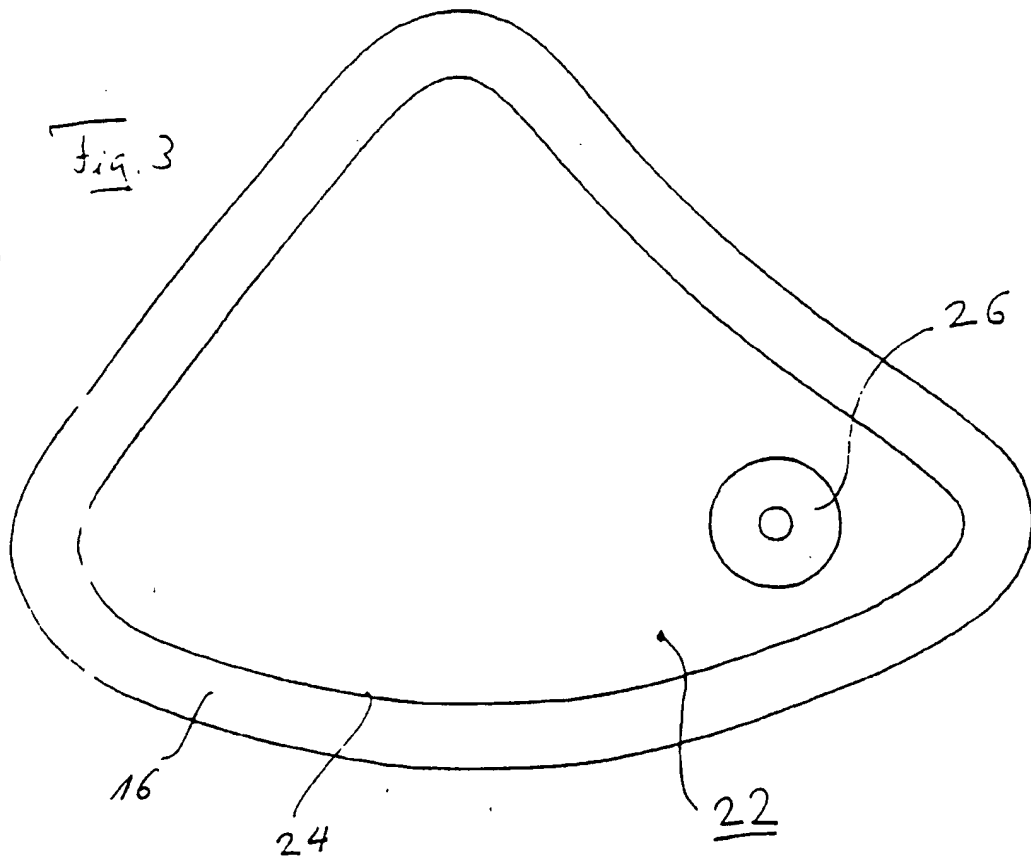


Fig. 4

